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Subject:	News--GM and Mercedes Benz to use Li-Ion batteries in HEVs, 50-state diesels for M-B
Date:	03/04/2008 01:07 PM

--GM and Mercedes both announce plans to use Li-Ion batteries in their next hybrids in 2009-2010.
--This will put more pressure on Toyota to make a formal announcement about Li-Ion

--Mercedes is readying 50-state compliant diesels for sale
--$1000 price premium over gasoline
--Spokesman said that M-B had an 80% diesel market penetration in the 1970's

Mercedes-Benz to use lithium-ion batteries in hybrid

Greg Kable

Automotive News | February 29, 2008 - 1:01 pm EST

Mercedes- Benz is claiming a major breakthrough in automotive battery development, announcing it will use lithium-ion technology in its upcoming S400 BlueHybrid that will go on sale in Europe in mid-2009. U.S. sales will follow in the third quarter of 2009.

If Mercedes sticks to that schedule, the new upmarket gasoline-electric hybrid will be the first series-production road car to rely on lithium-ion batteries for the storage of energy, presaging a whole new lineup of hybrid models being readied by Mercedes-Benz for introduction in coming years.

Mercedes says the S400 BlueHybrid, powered by a 3.5-liter V6 gasoline engine in combination with an electric motor mounted within the gearbox casing, will deliver a combined 299 hp and 277 lb-ft of torque, good for 0-to-62 mph in 7.3 seconds. More impressive, however, is its estimated fuel economy of 29.7 mpg and low emission rating.

The S400 will be followed by a second lithium-ion hybrid, the S300 Bluetec Hybrid that will combine a 2.2-liter, twin-turbocharged, four-cylinder diesel engine with an electric motor. The powertrain will produce 221 hp, 413 lb-ft of torque and a whopping 43.6 mpg, Mercedes says. The S300 hybrid will likely go on sale in North America in 2010.

Automotive News first reported last fall that Mercedes-Benz planned to launch the mild hybrid version of the S400 in 2009 using a lithium-ion battery pack.

The batteries will be made by Johnson Controls-Saft in Nersac, Farnce, assembled into modules with electronics by Continental Automotive Systems and shipped to Mercedes-Benz.

BMW is also expected to launch a vehicle with the same basic hybrid system.

The move contrasts General Motors, which has announced that it will put a lithium-ion-based plug-in hybrid Saturn Vue on the market in 2010. GM also plans to use lithium-ion batteries to power its electric vehicles based on the Volt concept. GM plans to deliver the electric cars, which store power in batteries that are charged by plugging into the power grid or by using small onboard gasoline or diesel engines or fuel cells to generate onboard power, in 2010 as well.

Boasting greater efficiency and durability than existing nickel-metal hydride batteries, as used by Toyota and its luxury brand, Lexus, in its extensive lineup of hybrids, lithium-ion technology has long been established in laptop computers, mobile telephones and small power tools.

However, the concern over its longevity and extensive heat build up in large applications, such as those required for modern-day passenger cars, has proven to be a major stumbling block for carmakers. Mercedes-Benz claims to have overcome these problems by integrating the lithium-ion batteries directly into the cooling system of the car to allow them to operate at an optimum temperature of between 59 and 95 degrees Fahrenheit.

Mercedes says it has been working on the underlying technology since 1992, creating 25 patents in the process.

"What we have here is a groundbreaking key technology that is going to be a decisive factor for the future success of the automotive industry," says Thomas Weber, head of Mercedes-Benz research and development.

Richard Truett contributed to this report

M-B will hit the road with 50-state diesels

Diana T. Kurylko

Automotive News | March 3, 2008 - 12:01 am EST

MONTVALE, N.J. — Luxury buyers want to appear environmentally responsible but don't

want to give up performance, says Mercedes-Benz.

Marketing campaigns for three new-generation Bluetec light trucks will try to convince potential buyers that the two qualities aren't contradictory by taking diesels on a nationwide tour, says Steve Cannon, vice president of marketing for Mercedes-Benz USA.

Mercedes also wants to play up the economics of owning a diesel. Fuel economy is about 30 percent better than with a similarly powered gasoline-driven vehicle.

Cannon says Mercedes will try to show buyers that they can quickly recoup the $1,000 premium that Mercedes will likely charge for a Bluetec diesel light truck.

This year — timing depends on getting enough preproduction vehicles — Mercedes will take an interactive display and diesel vehicles on the road to 12 to 15 cities. After seeing displays and listening to presentations, potential buyers will be offered test drives in the 2009 Bluetec diesel Mercedes-Benz M and GL SUVs and the R-class crossover.

All three light trucks have the new-generation ultraclean diesel that will be sold in all 50 states this fall. An ultraclean Bluetec E-class sedan goes on sale in 2009.

Mercedes-Benz already sells diesels in the three light trucks as well as the E class — but those vehicles can't be sold in California, New York and other states that have strict emissions regulations.

Cannon says about 80 percent of Mercedes' cars sold in the 1970s and 1980s were diesels, but the public still remembers the dirt and noise associated with diesels. To convince potential buyers that diesels are not only quiet but have improved low-end torque and good performance, Mercedes must get the consumers into the cars, Cannon says.

"We tested the whole notion with consumers," he says. "People want to do their part, but they don't want to alter their lifestyle."

Cannon says Mercedes will use the Bluetec logo — a name that admittedly doesn't have much equity — on the back of its diesel vehicles. To increase awareness, an integrated media campaign will be launched while the road show goes on tour.

A diesel Web microsite will be launched this month after the New York auto show. Print campaigns are being developed, but TV is iffy.

"We are still debating whether this fits television," says Cannon. "We have to build up

equity before we start saying 'Bluetec' and do the top-down media blast."

But he has little doubt the road show will work — based on the success of last year's C-class tours.

Cannon says about 33,000 people test-drove the C-class sedan during last year's event.

ENLARGE

Mercedes will offer test drives of 2009 Bluetec diesel GL SUVs in 12 to 15 cities. A 2008 GL320 CDI is shown.

Geneva '08: Hitachi will supply batteries for new GM Hybrid system

Posted Mar 4th 2008 12:18PM by Sam Abuelsamid
Filed under: Hybrid, GM, Geneva Motor Show

Following the publication of our earlier story on the new generation GM Hybrid system this morning we got some more details from General Motors during their Geneva press conference. Prior to the show, GM declined to say who was supplying the lithium ion batteries for the system. We now know that Hitachi Vehicle Energy Ltd. will be supplying the batteries, a first for a GM system. The second-generation hybrid system will debut on North American models in 2010 and quickly spread globally, including in the production version of the Saab 9-X that is appearing as a concept in Geneva.

[Source: General Motors]

Next-Generation GM Hybrid System Announced in Geneva

High-volume system will debut in North America in 2010, and then expand globally
Hitachi to supply new lithium-ion battery
Cost-effective technology to improve fuel economy by up to 20 percent

GENEVA - *As another key element in its overall global strategy to improve fuel economy and reduce oil consumption and CO_2 emissions, General Motors Chairman Rick Wagoner announced today that GM will introduce a second-generation version of the GM Hybrid System with a new, more powerful lithium-ion battery.*

Hitachi Vehicle Energy Ltd., a subsidiary of Tokyo-based Hitachi Ltd., will supply an advanced lithium-ion battery, which will help make the next-generation GM Hybrid System nearly three times more powerful than the system it replaces. Overall fuel economy improvements for cars and trucks using the system are expected to be up to 20 percent, depending on engine and vehicle application.

"This new system is another important step in our broad-based strategy to reduce vehicle fuel consumption and emissions," Wagoner said at the 78th International Geneva Motor Show.

The next-generation GM Hybrid System will build upon the successful belt-alternator-starter hybrid technology currently available in the Saturn Vue, Saturn Aura and Chevrolet Malibu. By building on this proven technology, Wagoner said, GM will be able to make the GM Hybrid System more cost-effective and expand its application in GM's global vehicle portfolio.

"In order to have a real impact in reducing oil consumption, oil imports, and CO_2 emissions, advanced technologies must be affordable enough to drive high-volume applications," he said. "We plan to roll out this next-generation hybrid technology globally, across our brands and regions, starting in 2010 in North America, and we expect that volumes will eventually exceed 100,000 units annually."

The next-generation GM Hybrid System will complement GM's widely acclaimed Two-Mode Hybrid system as part of the company's advanced powertrain portfolio. The

Two-Mode Hybrid system debuted in 2007 in the Chevrolet Tahoe and GMC Yukon, and will be offered this year in the Cadillac Escalade full-size SUV and the Chevrolet Silverado and GMC Sierra full-size pickups. The first front-wheel-drive application of the Two-Mode Hybrid system will debut in the 2009 Saturn Vue Green Line.

The increased power from the lithium-ion battery will allow the next-generation GM Hybrid System to be used in a wide range of global powertrains, including naturally aspirated engines, new high-efficiency turbocharged engines, bio-fuel engines and diesels.

This technology is showcased in the Saab 9-X BioPower Hybrid concept car, which debuted today at the Geneva Motor Show. The Saab concept is capable of 117 g CO_2/km, or projected fuel consumption of just 4.9 l/100 km (48 mpg) when running on gasoline over the combined cycle.

The next-generation GM Hybrid System helps optimize fuel efficiency and reduce emissions by:

- *Turning the engine off at idle*
- *Offering brief electric-only propulsion*
- *Using a more powerful electric motor to enhance engine efficiency*
- *Extending fuel cutoff during deceleration*
- *Extending regenerative braking to recapture more energy*
- *Performing intelligent hybrid battery charging*

For additional energy savings, an advanced six-speed automatic transmission also may be used, depending on the vehicle application.

The current GM Hybrid System was introduced in 2006 on the Saturn Vue Green Line SUV, which remains the lowest-priced hybrid SUV in the U.S., starting at a $25,995 MSRP. Shanghai GM announced in January that the Buick LaCrosse Eco-Hybrid sedan will be the first application for the current GM Hybrid System in Asia-Pacific.

By the end of 2008, GM will offer eight hybrid models in North America and nine worldwide. GM will introduce 16 new hybrid vehicles over the next four years.

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